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EXAMINER	
PRABHAKHER, PRITHAM DAVID	
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2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/644,261	ANSARI ET AL.	
	Examiner	Art Unit	
	Pritham Prabhakher	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-21 and 23-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-21 and 23-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/03/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to **claims 1-10 and 23-31** have been considered but are moot in view of the new ground(s) of rejection.

Regarding **Claims 11,** the applicant cancelled claim 13 and added the limitation of the integrated circuit that includes a first image module, a second image module and a processing engine to the claim. The applicant argues that Foote et al. (US Patent No.: 7015954B1) does not disclose or suggest the preceding limitation on Page 8 of the Remarks section. The applicant also argues, on Page 9 of the Remarks section, that the combination of Foote et al. with Li et al. (US Patent No. 7092014B1) fails to disclose the processing engine and one or more of the image sensors being mounted on an integrated circuit. The examiner respectfully disagrees with this assertion.

It is of the examiners opinion that Foote et al. combined with Li et al. discloses all the limitations of claim 11. Foote et al. disclose that the invention of the system which includes multiple sensors (camera array 1510) and a processor (1510) can be implemented by application specific integrated circuits, **Column 18, Lines 9-39 of Foote et al.** Foote et al. doesn't specifically teach that the image sensors and processor can be implemented on one integrated circuit. Li et al. is used to teach that the entire (all) invention of the embodiments of inventions can be implemented on one application specific integrated circuit, **Column 4, Lines 43-46.** It is of the examiners opinion that all

of the invention includes the array of cameras and the processor (144) in Figure 3 of Li et al.

As far as the rest of the arguments that suggest Li et al. teach away from Foote et al., it is of the examiners opinion that Li et al. is used only for the combinational purposes of the preceding paragraph and can be used to reject claim 11.

For the reasons discussed in the preceding pages, the rejections for claims 11-12 and 14-21 will be repeated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10, 23-31 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote et al. (US Patent No.: 7015954B1) and further in view of Budrys (US Patent No.: 6618078B1).

With regard to ***Claim 1****, Foote et al. teach of an image capture system (The invention has a system of cameras for image and video capturing,* ***Column 2, Lines 40-42)*** *comprising:*

a processing engine operable to perform an image processing function (The reference has a combining device which combines/warps (processes) images, ***Column 18, Lines 10-18)****;*

a first image sensor operable to capture a first view of a scene and to output first information representing the first view (The reference teaches of a first image sensor, capturing a view (210) of a scene to be output to a display such as (286) in Figure 2B or 1560 in Figure 15, ***See Figures 2A and 2B, Figure 15 and Column 6, Lines 19-30 and Lines 55-65)****;*

a second image sensor operable to capture a second view of the scene and to output second information representing the second view (The reference teaches of a second image sensor capturing a view (220). The captured view of the scene can be output to a display such as (286) in Figure 2B or 1560 in Figure 15, ***See Figures 2A and 2B, Figure 15 and Column 6, Lines 19-30 and Lines 55-65)****;*

a selector operable to selectively route at least a portion of scene view information to the processing engine, the scene view information comprising the first information and the second information (The scene view information comprises the first information and the second information because the images are combined into a single panoramic image, ***Column 6, Lines 19-30 and Figure 2A****. A combining device 1530 (processing engine) can be used to warp these images together,* ***Column 18, Lines 9-17.*** *There is a selector present in the invention that allows any desired sub-image to be selected. The portion of the scene of view that is not of interest can be discarded (not selected),* ***Column 6, Lines 26-33)****; and*

*Foote et al. teach of a mounting surface on which the first and the second image sensors are secured (****Figure 2B*** *shows the mounting surface (260) on which the first and second image sensors are secured). Foote et al. also teach of implementing the*

invention on application specific integrated circuits, ***Column 18, Lines 32****-39. However, Foote et al. do not specifically teach of the processing engine being mounted on the same mounting surface (integrated circuit) as the first and second image sensors. Budrys teaches of multiple sensors being mounted on an integrated circuit (mounting surface) along with a processing engine (DSP 36),* ***Figure 2 and Column 3, Lines 46 et seq. of Budrys****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the two image sensors and processing engine taught by Foote et al. into one integrated circuit (mounting surface) as taught by Budrys because this would make the invention more compact and it could thus be incorporated into hand-held devices.*

Regarding ***Claim 2****, Foote et al. and Budrys teach of the system of claim 1, further comprising a support having an exterior surface that comprises the mounting surface, the support having a geometry selected from the group consisting of a generally planar geometry, a generally cylindrical geometry, and a generally spherical geometry (Figure 1A of Foote et al. show the cameras are mounted on an exterior surface comprising the mounting surface where the geometry of the support is generally planar, cylindrical and spherical).*

In regard to ***Claim 3****, Foote et al. and Budrys disclose the system of claim 1, further comprising:*

a third image sensor operable to capture a third view of the scene (Camera 3 is used to capture a view (230) of the scene, ***Column 6, Lines 26 and 27 of Foote et al.)****; and*

an integrated circuit comprising the first image sensor, the second image sensor, the third image sensor, and the processing engine (Budrys teaches of multiple sensors being mounted on an integrated circuit (mounting surface) along with a processing engine (DSP 36), ***Figure 2 and Column 3, Lines 46 et seq. of Budrys)****.*

With regard to ***Claim 4****, Foote et al. and Budrys teach of the system of claim 1, wherein the first and second image sensors are operable as digital video sensors (The reference teaches that the CMOS image sensors are video cameras,* ***Column 4, Line 35 and Column 5, Line 50 of Foote et al.)****, further wherein the first and second image sensors are adjustably secured to the mounting surface (The cameras (image sensors) are moveable (adjustable) with respect to each other,* ***Column 7, Line 22 of Foote et al.*** *They are also adjustably secured to a mounting surface as shown in Figure 2B of Foote et al.).*

In regard to ***Claim 5****, Foote et al. and Budrys teach of the system of claim 1, further comprising a triggering engine operable to signal the selector to route the scene information to the processing engine (A motion sensor functions as a triggering engine that detects motion in a particular area and moves (selects) the appropriate camera to capture information from that location,* ***Column 12, Lines 1 et seq. of Foote et al.*** *This information is then input to the combining device (processing engine),* ***Column 18, Lines 15-18 of Foote et al.).***

With regard to ***Claim 6,*** *Foote et al. and Budrys teach of the system of claim 1 further comprising a microphone assembly communicatively coupled to the processing engine to provide audio output (The cameras can be controlled using a microphone/audio assembly. Images can be tracked according to their audio output and combined in the processing engine,* ***Column 15, Lines 1 et seq. and Column 16, Lines 1-26 of Foote et al.*** *Although not specifically mentioned, official notice is taken saying it would have been obvious to one of ordinary skill in the art at the time of the invention to provide audio output to go along with the display of images in a teleconference because this is a means of communicating a message).*

In regard to ***Claim 7****, Foote et al. and Budrys disclose the system of claim 1, wherein the first image sensor has an orientation and the second image sensor has a different orientation, further wherein the first and second image sensors are operable as digital video sensors, the system further comprising:*

a triggering engine communicatively coupled to the selector and operable to signal the selector to route a specific portion of the scene view information to the processing engine (A motion sensor functions as a triggering engine that detects motion in a particular area and moves (selects) the appropriate camera to capture information from that location, ***Column 12, Lines 1 et seq. of Foote et al.*** *This information is then input to the combining device (processing engine),* ***Column 18, Lines 15-18 of Foote et al.)****; and*

a directional determination assembly (camera array motion sensor) operable to detect a direction of activity in the scene, the assembly further operable to output a

signal that informs the triggering engine of the direction (The camera array motion sensor detects the motion (activity) in a particular region (determined direction). Upon detecting a motion in a particular region, a signal (information) is sent to point another camera in the appropriate direction, ***Column 12, Lines 22-32 of Foote et al.).***

With regard to ***Claim 8,*** *Foote et al. and Budrys teach of the system of claim 7, wherein the triggering engine is further operable to signal the selector to route the second information to the processing engine in response to a determination that the second view should capture the activity (The camera array motion sensor detects the motion (activity) in a particular region (determined direction). Upon detecting a motion in a particular region, a signal (information) is sent to point a second camera in the appropriate direction,* ***Column 12, Lines 22-32 of Foote et al.*** *Images from the camera array are processed in the combining device,* ***Column 18, Lines 14-15 of Foote et al.*** *If it is determined that only the second view should capture the activity, the other views can be discarded,* ***Column 6, Lines 27-29 of Foote et al.*** *The view selection device may select only part of the combined image (second image part) for display,* ***Column 18, Lines 20-21 of Foote et al.).***

In regard to ***Claim 9****, Foote et al. and Budrys teach of the system of claim 8, further comprising:*

a support having an exterior surface that comprises the mounting surface, the support having a geometry that facilitates differing orientations of the first and the second image sensors (The first and second image sensors are still mounted on a planar surface as shown in Figure 4C and Figure 1B. The first and second image

sensors have different orientations because their field of view can be placed at right angles to each other or at different room corners, ***Column 12, Lines 30-33 of Foote et al.)****; and*

an interface operable to communicatively couple an output of the processing engine to an external computing system (A view selection device (operable interface) is used to select the output of the processing engine (combining device) and sends it to an external computing system such as the view selection device (1560), ***Column 18, Lines 9-26 of Foote et al.).***

With regard to ***Claim 10,*** *Foote et al. and Budrys disclose the system of claim 9, wherein the activity comprises sound generation and wherein the system further comprises a computer coupled to the interface (The view selection device may automatically select a view based on audio (sound) activity,* ***Column 18, Lines 24-25 of Foote et al****. Also, the view selection device 1560 may make its selections based on the user input via an input mechanism 1575. The view selection device and the input mechanism can be implemented as a computer,* ***Column 18, Lines 21-31*** *and* ***Figure 15 of Foote et al.)****.*

In regard to ***Claim 23****, Foote et al. teach of an image capturing method (The invention has a system of cameras for image and video capturing method,* ***Column 2, Lines 40-42)****, comprising:*

correlating a plurality of digital image sensors with different views of a scene (Abutting areas of different views of a scene from the multiple image sensors are combined (correlated) together to form a panoramic image, ***Column 6, Lines 19-26)****;*

receiving information that represents a first view of the scene (The reference teaches of a first image sensor, capturing a view (210) of a scene to be output to a display such as (286) in Figure 2B or 1560 in Figure 15, ***See Figures 2A and 2B, Figure 15 and Column 6, Lines 19-30 and Lines 55-65)****;*

receiving additional information that represents a second view of the scene (The reference teaches of a second image sensor capturing a view (220). The captured view of the scene can be output to a display such as (286) in Figure 2B or 1560 in Figure 15, ***See Figures 2A and 2B, Figure 15 and Column 6, Lines 19-30 and Lines 55-65)****;*

determining that the first view of the scene comprises a desired portion of the scene (The invention allows for any desired sub-image (desired portion of a scene) to be selected (determined), ***Column 6, Lines 31-32)****; and*

allowing the information to progress to a processing engine (The reference has a combining device which combines/warps (processes) images, ***Column 18, Lines 10-18****. Images from the camera array (which hold camera one and two) are combined (processed) in the combing device 1540,* ***Column 18, Lines 14-16)****.*

Foote et al. teach of implementing the invention on application specific integrated circuits, ***Column 18, Lines 32-39.*** *However, Foote et al. do not specifically teach of the processing engine being mounted on the same integrated circuit as one of the first and second image sensors. Budrys teaches of multiple sensors being mounted on an*

integrated circuit (mounting surface) along with a processing engine (DSP 36), ***Figure 2 and Column 3, Lines 46 et seq. of Budrys****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the two image sensors and processing engine taught by Foote et al. into one integrated circuit (mounting surface) as taught by Budrys because this would make the invention more compact and it could thus be incorporated into hand-held devices.*

In regard to ***Claim 24,*** *Foote et al. and Budrys disclose the method of claim 23, further comprising disallowing progression of the additional information to the processing engine (If an area of interest is not shown in an image, it can be discarded,* ***Column 6, Lines 27-29 of Foote et al.)****.*

With regard to ***Claim 25,*** *Foote et al. and Budrys disclose the method of claim 23, further comprising performing an image signal processing function on the information (The reference has a combining device which combines/warps (processes) the image signals,* ***Column 18, Lines 10-18 of Foote et al.)****.*

In regard to ***Claim 26****, the reference teaches of the method of claim 23, further comprising:*

performing an image signal processing function on the information (The reference has a combining device which combines/warps (processes) the image signals, ***Column 18, Lines 10-18 of Foote et al.)****; and*

initiating presentation of the information on a display after performing the image signal processing function (After going through the combining device 1540, the

information that is combined is displayed on an output mechanism 1570, ***Column 18, Lines 15-21 and Figure 15 of Foote et al.)****.*

Regarding ***Claim 27,*** *Foote et al. and Budrys disclose the method of claim 23, further comprising:*

determining that the second view of the scene comprises another desired portion of the scene ***(****If the second view of an image is a desired one, it can be selected,* ***Column 6, Lines 31-32 of Foote et al.*** *As taught in the above claims, the determination that the second view of the scene comprises a desired portion of the scene is determined by the user or during motion analysis. During motion analysis, the camera array motion sensor detects the motion (activity) in a particular region (desired region). Upon detecting a motion in a particular (desired) region, a signal (information) is sent to point a second camera in the appropriate direction,* ***Column 12, Lines 22-32 of Foote et al.)****; and*

allowing the additional information to progress to the processing engine ***(****Images from the camera array are processed in the combining device,* ***Column 18, Lines 14-15 of Foote et al.****).*

With regard to ***Claim 28****, Foote et al. and Budrys disclose the method of claim 23, further comprising:*

correlating the first view to a first image sensor of the plurality of image sensors and the second view to a second image sensor of the plurality of image sensors ***(****Looking at Figure 2A of Foote et al. it is evident that Camera 1 and Camera 2 capture two different fields of view of the object 200****) ; and*

receiving a directional identification signal indicating that the first view contains a desired scene activity (The camera array motion sensor detects the motion (activity) in a particular region (determined direction). Upon detecting a motion in a particular region, a signal (information) is sent to point another camera in the appropriate direction, ***Column 12, Lines 22-32 of Foote et al.*** *However, if the motion is in the region of the first view (desired view), the camera in the first view will be selected to capture the scene's activity).*

Regarding ***Claim 29****, Foote et al. and Budrys disclose the method of claim 23, further comprising:*

performing an image signal processing function on the information (The reference has a combining device which combines/warps (processes) the image signals, ***Column 18, Lines 10-18 of Foote et al.)****; and*

outputting post processed image signal information (After going through the combining device 1540, the information that is combined is displayed on an output mechanism 1570, ***Column 18, Lines 15-21 and Figure 15 of Foote et al.)****.*

With regard to ***Claim 30****, Foote et al. and Budrys disclose the method of claim 28, further comprising initiating communication of the post processed image signal information as data packets across a network (After the images are combined (processed) in the combining device 1540, the data is broadcast to the display 1570,* ***See Figure 15 and Column 18, Lines 9 et seq. of Foote et al.)****.*

In regard to ***Claim 31****, Foote et al. and Budrys disclose the method of claim 29 further comprising streaming the post processed image signal information (The*

reference teaches of streaming the video information since the images being shown on the display are not still images, they are streaming video images done in real time, ***Column 16, Lines 45-55 of Foote et al.)****.*

Regarding ***Claim 32,*** *Foote et al. teach of an image capturing method comprising:*

receiving image data from a plurality of image sensors (Image data is received from the array of cameras (plurality of image sensors) 1510 in ***Figure 15*** *of* ***Foote et al.)****,*

selectively providing image data related to one or more of the plurality of image sensors to the processing engine (The image data from 1510 is provided to the processing engine 1530 which combines the images, ***Figure 15 and Column 18, Lines 9 et seq. of Foote et al.)****;*

processing the image data to produce an output (The image data is combined (processed) in 1530 and sent to the output 1570, ***Figure 15 and Column 18, Lines 9 et seq. of Foote et al.)****; and*

transmitting the output to a video conferencing device (The output 1570 can be used as a video conferencing (teleconferencing) device, ***Figure 155 and Column 1, Lines 33-45 of Foote et al.)****.*

Foote et al. teach of implementing the invention on application specific integrated circuits, ***Column 18, Lines 32-39.*** *However, Foote et al. do not specifically teach of the integrated circuit comprising the processing engine and one of the first and second*

image sensors. Budrys teaches of multiple sensors being mounted on an integrated circuit (mounting surface) along with a processing engine (DSP 36), ***Figure 2 and Column 3, Lines 46 et seq. of Budrys****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the two image sensors and processing engine taught by Foote et al. into one integrated circuit (mounting surface) as taught by Budrys because this would make the invention more compact and it could thus be incorporated into hand-held devices.*

With regard to ***Claim 33****, Foote et al. and Budrys disclose the method of claim 32, further comprising:*

receiving an audio signal via a directional microphone (The cameras can be controlled using a microphone/audio assembly, ***Column 15, Lines 1 et seq. of Foote et al.)****; and*

selectively providing image data associated with a particular image sensor of the plurality of image sensors to the processing engine based on a direction associated with the audio signal (The cameras can be controlled using a microphone/audio assembly. Images can be tracked according to their audio output and combined in the processing engine, ***Column 15, Lines 1 et seq. and Column 16, Lines 1-26 of Foote et al.)****.*

Claims 11-12 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote et al. (US Patent No.: 7015954B1) and further in view of Li et al. (US Patent No.: 7092014B1).

*Regarding **Claim 11**, Foote et al. teach of an image capturing system comprising:*

*a first image module communicatively coupled to a processing engine, the first image module operable to capture first image information (The reference teaches of a first image module capturing a view (210) of a scene (information) to be output to a display such as (286) in Figure 2B or display 1560 in Figure 15, **See Figures 2A and 2B, Figure 15** and **Column 6, Lines 19-30 and Lines 55-65 of Foote et al.** The first image module is communicatively coupled with the processing engine (combining device 1540) because the combining device warps the piece of information from the first image module with other image information, **Column 18, Lines 10-17 of Foote et al.**);*

*a second image module communicatively coupled to the processing engine, the second image module operable to capture second image information (The reference teaches of a second image sensor capturing a view (220). The captured view of the scene can be output to a display such as (286) in Figure 2B or 1560 in Figure 15, **See Figures 2A and 2B, Figure 15 and Column 6, Lines 19-30 and Lines 55-65 of Foote et al.** The second image module is communicatively coupled with the processing engine (combining device 1540) because the combining device warps the piece of information*

from the second image module with other image information, ***Column 18, Lines 10-17 of Foote et al.)****; and*

the processing engine operable to perform an image processing function on information received from the first image module and the second image module (The combining device (processing engine) combines/warps (processes) images from the first and second image modules, ***Column 18, Lines 10-18 of Foote et al.)****.*

Foote et al. teach of implementing the invention on application specific integrated circuits, ***Column 18, Lines 32-39.*** *However, Foote et al. do not specifically teach of an integrated circuit comprising the first image sensor, the second image sensor, the third image sensor, and the processing engine.*

Li et al. teach of an image system with multiple sensors (two or more sensors, ***Column 9, Lines 33-36 of Li et al.)*** *and a processing engine (processing unit 144, in Figure 3 of Li et al.) in various different embodiments. In each embodiment, Li et al. teach that all of the invention can be implemented in one integrated circuit,* ***Column 4, Lines 42-46 of Li et al****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into Foote et al. an integrated circuit comprising the first image sensor, the second image sensor and the third image sensor as taught by Li et al. because this would make the invention more compact and it could thus be incorporated into hand-held devices (cell phones), gaming consoles and microcomputers.*

*In regard to **Claim 12**, Foote et al. and Li et al. disclose the system of claim 11, further comprising:*

*a third image module communicatively coupled to the processing engine (Camera 3 is used to capture a view (230) of the scene, **Column 6, Lines 26 and 27 of Foote et al**. Images from the camera array, which includes camera 3, are combined in a combining device 1540 (processing engine), **Column 18, Lines 14-16 of Foote et al.**); and*

*an interface operable to facilitate communication of a processing engine output to a computing device (After going through the combining device 1540, the information that is combined is displayed on an output mechanism 1570, **Column 18, Lines 15-21 and Figure 15 of Foote et al.**).*

*With regard to **Claim 14**, Foote et al. and Li et al. disclose the system of claim 11, further comprising a selection mechanism operable to switch the information received by the processing engine from the first image information to the second image information (The view selection device can select a image view based on video motion analysis. Based on the analysis, the selection devise can switch from the first image information to be displayed to the second, **Column 18, Lines 9-26 of Foote et al.).***

*In regard to **Claim 15,** Foote et al. and Li et al. disclose the system of claim 11, wherein the processing engine is operable to simultaneously perform an image processing function on information received from the first image module and the second*

image module (All warping (processing) is done simultaneously at video rates of 10 to 30 frames per second, ***Column 11, Lines 65-67 of Foote et al.)****.*

With regard to ***Claim 16,*** *Foote et al. and Li et al. disclose the system of claim 11, wherein the first image module has a field of view and the second module has a different field of view (Looking at Figure 2A of Foote et al., it is evident that Camera 1 and Camera 2 capture two different fields of view of the object 200)****.***

In regard to ***Claim 17****, Foote et al. and Li et al. disclose the system of claim 11, wherein the first image module has a resolution and the second module has a different resolution (Ch1 and Ch2 represent two different cameras in Figure 10. Before merging the images from Ch1 and Ch2, it is taught that the regions from Ch1 corresponding to the regions in Ch2 differ in resolution (the regions are darker in Ch1),* ***Column 11, Lines 41-47 of Foote et al.)****.*

With regard to ***Claim 18****, Foote et al. and Li et al. disclose the system of claim 11, wherein the first image module comprises a digital zoom lens (The invention is related to digital zooming of a scene by an array of cameras,* ***Column 1, Lines 26-30 of Foote et al.)****.*

In regard to ***Claim 19****, Foote et al. and Li et al. teach of an image module that comprises a zoom lens that performs focusing,* ***Column 1, Lines 26-30 of Foote et al****. However, the references do not specifically teach of the zoom being an optical zoom or the focus being auto-focus. Official notice is taken by the examiner stating that it would have been obvious and well know at the time of the invention to have a lens that performed optical zoom with auto-focus. Having an optical zoom would have been*

better and more powerful than having a digital zoom and having the lens perform an auto-focus function would have saved the user the time and effort of manually focusing in on a scene to be imaged.

*In regard to **Claim 20**, Foote et al. and Li et al. disclose the system of claim 11, wherein the first image module comprises a fixed-focus and fixed-zoom lens (The array of cameras can be fixed. Therefore, the focus and zoom of the first image module can also be fixed, **Column 6, Lines 31-43 of Foote et al.**).*

*With regard to **Claim 21**, Foote et al. and Li et al. disclose the system of claim 11, wherein the first image information represents a first view of a scene and the second image information represents a second view of the scene (Looking at Figure 2A of Foote et al., Camera 1 has a different view (210) than Camera 2 (220). They each represent a different view of the participant 200), and wherein at least a portion of the first information represents a portion of the scene captured in the second view (Looking at Figure 2A of Foote et al., Camera 1 represents a portion of participant 200 and Camera 2 represents a portion of the same participant 200).*

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection for claims 1-10 and 23-33 presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pritham Prabhakher whose telephone number is 571-270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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